VETERINARY TECHNOLOGY

VETERINARY TECHNOLOGY

Rock Creek Campus
Building 7, Room 202
971-722-7461

pcc.edu/programs/vet-tech/

VETERINARY TECHNOLOGY

CAREER AND PROGRAM DESCRIPTION

VETERINARY TECHNOLOGY

Veterinary technicians work with veterinarians and are skilled and knowledgeable in the practical application of aspects involved in the care and handling of animals, clinical laboratory procedures, animal diseases, animal nutrition, pharmacology, radiography, anesthesiology and medical and surgical assistance. Graduates are prepared to function as competent veterinary technicians in small and large animal hospitals and clinics, laboratory animal research facilities, educational institutions, animal shelters, military service and commercial firms. The program also emphasizes the development of professional attitudes and interpersonal skills expected of health care professionals.

This program is fully accredited by the Committee on Veterinary Technician Education and Activities of the American Veterinary Medical Association. Graduates are eligible to take the Veterinary Technician National Examination administered by the Oregon Board of Veterinary Medical Examiners. Graduates are also eligible for licensure in other states.

This is a seven-term, full time program. All Veterinary Technology courses must be taken in the sequential order in the course of study below. All Veterinary Technology courses must be completed with a C or better to qualify for continuation in the program.

DEGREES AND CERTIFICATES OFFERED

ASSOCIATE OF APPLIED SCIENCE DEGREE

Veterinary Technology

Academic Prerequisites

- High school diploma, GED certificate, or equivalent required.
- Completion of MTH 95, its equivalent or higher with a letter grade of "C" or better.
- Completion of WR 121, it's equivalent or higher with a letter grade of "C" or better.
- Completion of CH 151, its equivalent or higher with a letter grade of "C" or better.
- Completion of BI 112, its equivalent or higher with a letter grade of "C" or better.
- Completion of MP 111, its equivalent or higher with a letter grade of "C" or better.
- The Veterinary Technology program is a closed entry program with limited enrollment. Completing admission requirements and applying to the program does not guarantee admission. Admission to the first year of the program is based on high school and college grades, meeting the above program prerequisites, completion of required observation hours with a veterinarian, a letter of recommendation, and an interview.

Academic Requirements

- None

Non-Academic Prerequisites

- A minimum of forty hours of observation with a veterinarian is required. This may be done as a paid employee or as a volunteer.

Non-Academic Requirements

- None

VETERINARY TECHNOLOGY AAS DEGREE

Minimum 100 credits. Students must also meet Associate Degree Comprehensive Requirements and Associate of Applied Science Requirements. Students must complete a total of sixteen credits of General Education. Some courses specified within the program may be used as General Education. In addition to required courses in the program of study, students must satisfy MTH 58/65 competency. Students should consult with program advisors for course planning.

COURSE OF STUDY

The coursework listed below is required. The following is an example of a term-by-term breakdown.

| First Term | VT 101 | Introduction to Veterinary Technology | 3 |
| VT 104 | Facility Ward Care | 2 |
| VT 114 | Domestic Animal Behavior | 1 |
| VT 105 | Comparative Veterinary Anatomy and Physiology I | 4 |
| VT 121 | Large Animal Nursing and Restraint | 4 |
| General Education | 4 |
| Second Term | VT 102 | Small Animal Nursing and Restraint | 3 |
| VT 106 | Comparative Veterinary Anatomy and Physiology II | 4 |
| VT 107 | Veterinary Parasitology and Pathology | 3 |
| VT 108 | Pharmaceutical Mathematics | 1 |
| General Education | 4 |
| Third Term | VT 103 | Veterinary Practice Management | 3 |
| VT 110 | Specimen Collection Laboratory | 2 |
| VT 111 | Clinical Laboratory Procedures 1 | 4 |
| VT 208 | Small Animal Diseases | 3 |
| General Education | 4 |
| Fourth Term | VT 109 | Radiation Safety | 2 |
| VT 112 | Clinical Laboratory Procedures 2 | 4 |
| VT 113 | Veterinary Microbiology | 3 |
| VT 280A | Cooperative Education: Clinic I | 4 |
| General Education | 4 |
| Fifth Term | VT 201 | Anesthesiology | 3 |
| VT 204 | Applied Radiography | 3 |
| VT 205 | Veterinary Pharmacology | 4 |
| VT 215 | Laboratory Animal Science | 2 |
| Sixth Term | VT 202 | Surgical Nursing | 4 |
| VT 207 | Public Health and Sanitation | 1 |
| VT 280B | Cooperative Education: Clinic II | 4 |
| Seventh Term | VT 203 | Introduction to Veterinary Specialties | 3 |
| VT 209 | Large Animal Diseases and Procedures | 3 |
| VT 210 | Animal Nutrition | 3 |
| VT 280C | Cooperative Education: Clinic III | 4 |

Total Credits 100

VT 101. Introduction to Veterinary Technology. 3 Credits.
Introduces the job duties and expectations of the Certified Veterinary Technician. Covers veterinary medical terminology used in the field. Prerequisite: Admission into the Veterinary Technology Program.
VT 102. Small Animal Nursing and Restraint. 3 Credits.
Covers nursing techniques and principles of restraint of dogs, cats, and birds. Emphasizes techniques to maximize the safety aspect of restraint to both the handler and to the animal patient. Prerequisite: Admission to Veterinary Technology program.

VT 103. Veterinary Practice Management. 3 Credits.
Introduces medical records, admitting procedures, history taking, kennel records, and record maintenance for both in- and out-patients. Includes client communication, follow-up and discharge procedures, inventory control, and other maintenance files required by a veterinary hospital. Includes instruction on the use of veterinary hospital computer software. Prerequisite: Admission to Veterinary Technology program.

VT 104. Facility Ward Care. 2 Credits.
Introduces principles of daily animal husbandry, socialization, enrichment, and clinical care of animals housed in campus facilities. Explores teamwork, communication, veterinary technical skills, and principles of professionalism encountered in the daily operations of a multi-species veterinary facility. Prerequisites: Admission to Veterinary Technology program.

VT 105. Comparative Veterinary Anatomy and Physiology I. 4 Credits.
Covers the form and function of animal bodies and examines the anatomical and physiological differences between selected species. Includes a lab where skeletons and cadaver specimens are studied. Focuses on microscopic anatomy and physiology of bones, muscles, and skin. Prerequisite: Admission to Veterinary Technology program.

VT 106. Comparative Veterinary Anatomy and Physiology II. 4 Credits.
Covers anatomical and physiological differences between selected species. Focuses on microscopic anatomy and anatomy and physiology of the digestive, nervous, urinary, reproductive, and endocrine systems. Includes the study of the special sense organs. Prerequisite: Admission to Veterinary Technology program.

VT 107. Veterinary Parasitology and Pathology. 3 Credits.
Introduces life cycles, modes of transmission, geographical distribution, and diseases associated with animal parasites. Includes parasite identification using prepared slides and collected specimens. Includes terms and processes involved in veterinary pathology, means and processes that result in disease, types of cells and tissues, and signs of inflammation. Prerequisite: Admission to Veterinary Technology program.

VT 108. Pharmaceutical Mathematics. 1 Credit.
Introduces mathematics as applied to pharmacology. Includes unit conversions, solutions and percentage calculations, and drug dosage calculations. Prerequisite: Admission to Veterinary Technology program.

VT 109. Radiation Safety. 2 Credits.
Introduces x-radiation and safety principles involved in using x-ray machines. Program admission or current employment in a veterinary facility or clinic doing x-ray work is required. Prerequisite: Admission to Veterinary Technology program or instructor approval.

VT 110. Specimen Collection Laboratory. 2 Credits.
Covers collection techniques used on both large and small animals and skills needed to obtain the specimens required for analysis in clinical laboratories. Prerequisites: Admission to Veterinary Technology program.

VT 111. Clinical Laboratory Procedures 1. 4 Credits.
Covers the knowledge and skills necessary to perform hematology and urinalysis. Includes instruction for performing complete blood counts and urinalysis using current technology. Prerequisite: Admission to Veterinary Technology program.

VT 112. Clinical Laboratory Procedures 2. 4 Credits.
Covers the knowledge and skills necessary to perform various types of tests that are usually done in the clinical laboratory of a veterinary hospital. Includes learning to perform serum chemistries on various types of machines, knowledge of special commercial test procedures, and examination of cytology specimens. Prerequisite: Admission to Veterinary Technology program.

VT 113. Veterinary Microbiology. 3 Credits.
Develops the knowledge and skills necessary to perform microbiology functions. Includes learning about the various pathological genus and species of bacteria, fungi, and viruses. Focuses on the various laboratory methods used in the identification of bacterial and fungal organisms. Prerequisites: Admission to Veterinary Technology program.

VT 114. Domestic Animal Behavior. 1 Credit.
Covers basic concepts relating to domestic animal behavior, including normal behavior; how animals learn; methods of behavioral modification; and common animal behavioral issues. Prerequisite: Admission to the Veterinary Technology Program.

VT 121. Large Animal Nursing and Restraint. 4 Credits.
Introduces the livestock industry and the various species of large animal livestock. Includes livestock terminology, breeds, production systems, basic management practices, and animal products and by-products. Lab introduces the livestock production systems and producers. Prerequisite: Admission into Veterinary Technology Program.

VT 201. Anesthesiology. 3 Credits.
Introduces basic anesthetic agents, the use and operation of anesthesia machines and monitoring equipment, monitoring and care of the anesthetized veterinary patient, and the pre-operative considerations and duties for both surgery and anesthesia. Prerequisites: Admission to Veterinary Technology program.

VT 202. Surgical Nursing. 4 Credits.
Covers the preparation and monitoring of surgical patients, surgical assisting, aseptic techniques, and pre- and post-operative patient care. Includes surgical instrument identification, methods of instrument sterilization, and the veterinary technician’s role in special surgical procedures. Prerequisite: Admission to Veterinary Technology program.

VT 203. Introduction to Veterinary Specialties. 3 Credits.
Covers advanced and special topics in veterinary technician training, with an emphasis on veterinary specialties. Includes electrocardiography, necropsy techniques, cardiopulmonary resuscitation, and other diagnostic and therapeutic procedures. Includes guest lecturers from a variety of veterinary and veterinary technician specialties, such as exotic animal medicine, surgery, anesthesia, imaging, and others. Includes investigating, researching, and reporting on topics of special interest. Prerequisite: Admission to Veterinary Technology program.

VT 204. Applied Radiography. 3 Credits.
Covers the practical application of radiography in the veterinary profession. Includes principles of x-ray production, the operation and uses of x-ray machines, the care and development of films, and radiographic positioning of animals. Prerequisites: Admission to Veterinary Technology program.

VT 205. Veterinary Pharmacology. 4 Credits.
Introduces general pharmacological principles, drugs, and classification of agents used in veterinary medicine. Covers therapeutic responses to drugs and common adverse drug reactions. Prerequisites: Admission to Veterinary Technology program.

VT 207. Public Health and Sanitation. 1 Credit.
Covers the principles of public health and sanitation as they apply to veterinary medicine and the veterinary technician. Emphasizes epidemiology, public health principles and regulations, zoonoses, and meat and food hygiene. Includes vaccine theory, immunology, vaccination protocols and handling of biologicals. Prerequisites: Admission to Veterinary Technology program.

VT 208. Small Animal Diseases. 3 Credits.
Covers clinically important diseases and disease processes occurring in small animals. Includes the causes, pathogenesis, clinical signs, treatment and prevention of each disease. Prerequisites: Admission to Veterinary Technology program.

VT 209. Large Animal Diseases and Procedures. 3 Credits.
Covers the clinically important large animal diseases, disease processes, and obstetric procedures. Includes the causes, pathogenesis, clinical signs, treatment and prevention of each disease. Focuses on large animal diagnostic and treatment procedures in the laboratory section. Prerequisites: Admission to Veterinary Technology program.

VT 210. Animal Nutrition. 3 Credits.
Introduces various types of nutrients, the basic principles of nutrition as applied to small and large animals, various feeding practices and their economic importance, and important nutritionally caused diseases. Covers care and handling of orphaned animals and special prescription diets. Prerequisites: Admission to Veterinary Technology program.

VT 215. Laboratory Animal Science. 2 Credits.
Explores ethical animal usage, husbandry, and common medical procedures for a variety of species used within the laboratory animal medicine specialty. Prerequisite: Admission into Veterinary Technology Program.

VT 280A. Cooperative Education: Clinic I. 4 Credits.
Provides an opportunity to work in a veterinary hospital or clinic. Focuses on office/receptionist skills, animal nursing and restraint, and laboratory procedures. Department permission required.
VT 280B. Cooperative Education: Clinic II. 4 Credits.
Provides an opportunity to work in a veterinary hospital or clinic. Focuses on office/receptionist skills, animal nursing and restraint laboratory procedures, pharmacology, radiography, surgical preparation and assistance and anesthesiology. Students may request to attend a special clinic, such as the Oregon Regional Primate Center, Oregon Health Science University, The College of Veterinary Medicine at Oregon State University, or a large animal or equine practice. Department permission required.

VT 280C. Cooperative Education: Clinic III. 4 Credits.
Provides an opportunity to work in a veterinary hospital or clinic. Focuses on office/receptionist skills, animal nursing and restraint laboratory procedures, pharmacology, radiography, surgical preparation and assistance and anesthesiology. Students may request to attend a special clinic, such as the Oregon Regional Primate Center, Oregon Health Science University, The College of Veterinary Medicine at Oregon State University, or a large animal or equine practice. Department permission required.